IN THE CLAIMS:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) A system comprising one or more processors configured to execute application sessions in an electronic device, and to schedule resource reservation instances as well as to execute substantially simultaneous application sessions, wherein an application session to be executed comprises one or more activity blocks in one or more activity block containers, and an execution order is specified for said activity blocks; the one or more processors configured as resource type specific resource handlers to reserve resources for the application session, as resource allocation manager to analyze and save a resource allocation situation, as an application session management and scheduling manager to select at least a next application session and activity block to be executed on the basis of said resource allocation situation, said one or more processors configured to execute the next activity block in the course of the selected application session, and the one or more processors are configured to use a protocol connecting the resource handlers, resource allocation manager, application session management and scheduling manager, to control the execution order and to implement the transfer of information between said resource handlers, resource allocation manager, application session management and scheduling manager, the system further comprising an operating system with scheduling functions, and for synchronizing the reservation, release and other resource-related control from the application session management and scheduling manager, activity block containers, resource allocation manager, and resource handlers, there is a session control protocol comprised of application-independent control messages and rules on use thereof, which is arranged during operation to implement the synchronization and scheduling control of the execution of the application session management and scheduling manager, the activity block containers, the resource allocation manager, as well as the resource handlers, based on task switching functions of the operating system as well as task priorities of the operating system defined for the application session management and scheduling manager, the activity block containers, the resource allocation manager, and the resource handlers, said one or more processors configured for bookkeeping of the resource allocation situation, configured to transmit a first control

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message to an activity block to provide control information on the resource allocation to the activity block at the time of initiation of the activity block, and for transmitting a second control message at the time of the completion of the execution of the activity block to provide information about the resources reserved or released by the activity block to update the bookkeeping of the resource allocation situation after the completion of each activity block. ~~The~~said system ~~according to Claim 2,~~ configured for an application session to reserve ~~the~~ resources needed by each activity block, as well as to release them, either directly from ~~the~~ resource type specific resource handlers or from the resource allocation manager that enable ~~the~~ queuing of reservation request messages, on the basis of control parameters received in ~~a~~ the first control message ~~received from application session management and scheduling manager,~~ said one or more processors configured to make the resource reservation instances created on a request from the application session, via the use of said second control message, dynamically available to different activity block containers involved in execution of the session, as needed, wherein an end state module is placed at the end of each activity block to complete the execution of the block, and a waiting state module is placed in the activity block container holding the activity block, and wherein execution control of the activity block container holding the activity block is arranged to generate said second control message in the end state module and to pause the execution in the waiting state module in order to wait for a first control message from the application session management and scheduling manager, wherein the execution of the application session is temporarily interrupted regarding the current activity block container.

4. (Cancelled)

5. (Cancelled)

6. (Currently Amended) The system in accordance with the Claim ~~1~~3, comprising a resource instance table per each resource handler to provide the resource allocation situation to said resource allocation manager, and the synchronization of the resource allocation manager with respect to the resource handlers is arranged to be determined so that substantially immediately after each execution turn of the resource handlers it is the turn of the resource allocation manager, wherein the resource allocation situation is unambiguously known in the resource instance tables regarding most lately occurring changes.

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7. (Previously Presented) The system in accordance with Claim 6, wherein the synchronization of the resource allocation manager with respect to the application session management and scheduling manager is determined so that substantially immediately after each execution turn of the resource allocation manager it is the turn of the application session management and scheduling manager, wherein the resource allocation situation is unambiguously known regarding the latest changes to have occurred, and values can be determined by the application session management and scheduling manager for the parameters of the control messages generated by it for the synchronization of the use of various types of resource reservation instances.

8. (Cancelled)

9. (Currently Amended) The system in accordance with Claim 8 3, wherein the application session management and scheduling manager are arranged to analyse the resource allocation situation and the scheduling of the sessions to be executed to detect an overload condition of one or more resources and to manage it by replacing, as needed, application sessions with other application sessions requiring less resources, or by delaying, as needed, the transmission of first control messages to the application sessions, which results in a temporary suspension of the ongoing application session or in a delayed initiation of a new application session.

10. (Currently Amended) The system in accordance with the Claim 1 3, wherein the activity blocks of the application session are placed in one or more activity block containers, that activity blocks in any one of these activity block containers are arranged to be executed temporally at different times, and in the presence of activity blocks that are intended to be executed substantially at the same time in the course of the session, they are placed in different activity block containers.

11. (Previously Presented) The system in accordance with Claim 10, wherein for designing applications that are to be executed in the system, each activity block container is furnished with an interface module at those points where the execution of an activity block or the activity block container can be interrupted and it may be the turn of another operating system task to be executed, thus enabling the sending and reception of session control protocol messages to take place via this interface of the activity block container without a need to deal

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with these messages of the protocol as part of the application design work.

12. (Currently Amended) The system in accordance with the Claim 13, wherein the resource handlers are equipped with an interface for transmitting information between each resource handler and the system, this interface being substantially independent of the application session and the resource type.

13. (Currently Amended) The system in accordance with the Claim 13, comprising a dedicated resource instance table in the use of each resource handler, and the resource handlers are designed to be without intermediate delayed states, wherein the changes of the status data of individual resource reservation instances are stored in the resource instance table of each resource handler.

14. (Currently Amended) The system in accordance with the Claim 13, wherein the application session management and scheduling manager is associated with a session history table and the resource allocation manager is associated with a resource allocation table, and the application session management and scheduling manager and the resource allocation manager are designed to be without intermediate states, wherein changes of session-related status information is stored in said session history table, and changes of session-related information of resource reservation instances are stored in said resource allocation table.

15. (Currently Amended) The system in accordance with the Claim 13, configured to determine a load condition of at least one processor of said one or more processors and to adjust the power consumption of the at least one processor on the basis of the load condition through scheduling of activities of the application sessions.

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) A method for executing application sessions in an electronic device with one or more processors for synchronizing resource reservation instances as well as the execution of substantially simultaneous application sessions, wherein the application session to be executed comprises one or more activity blocks in one or more activity block

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containers, and an execution order is determined for said activity blocks, the method
comprising at least the following:

-        resource management and allocation for requesting and reserving resources for the
         application session,

-        bookkeeping and analysis for saving and analysing the resource reservation situation,

-        scheduling and selection for selecting the next application session and activity block
         to be executed at least on the basis of said resource reservation situation,

-        executing the next activity block in the course of the selected application session,

wherein in the method, a communication protocol connecting said resource management and
allocation, bookkeeping and analysis, scheduling and selection, and the executing are used to
control the execution order and, if necessary, to transfer information between said resource
management and allocation, bookkeeping and analysis, scheduling and selection, and
executing

wherein in the method, an operating system is utilized comprising task switching functions,
and that for synchronizing the reservation, release and other resource-related control from the
application session management and scheduling manager, activity block containers, resource
allocation manager and the resource handlers, there is a session control protocol comprised of
application-independent control messages and rules on use thereof, which is arranged, during
operation, to implement synchronization and scheduling control of the execution of the
application session management and scheduling manager, the activity block containers, the
resource allocation manager, as well as the resource handlers, on the basis of the task
switching functions of the operating system as well as the task priorities of the operating
system defined for the application session management and scheduling manager, the activity
block containers, the resource allocation manager, and the resource handlers, wherein a
bookkeeping of the resource allocation is maintained, and a first control message is
transmitted to an activity block to provide control information on the resource allocation at
the time of the initiation of the activity block, and a second control message is returned by the
activity block to provide information about the resources reserved or released by the activity
block to update bookkeeping of the resource allocation situation after the completion of each
activity block, ~~The method in accordance with Claim 17,~~ wherein the resources needed by
each activity block are reserved and released by the application session, either directly from
resource type specific resource handlers or from the resource allocation manager that enable
the queuing of reservation request messages, on the basis of control parameters received in a

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first control message received from application session management and scheduling manager, wherein second control messages are used by the application session to dynamically assign resource reservation instances to the use of different activity block containers involved in the execution of the session, as needed, wherein an end state module is placed at the end of each activity block to complete the execution of the block, and a waiting state module is placed in the activity block container holding the activity block, and the execution control of the activity block container holding the activity block generates a second control message in the end state module and pauses the execution in the waiting state module in order to wait for an first control message from the application session management and scheduling manager, wherein the execution of the application session is temporarily interrupted regarding the current activity block container.

19. (Cancelled)

20. (Cancelled)

21. (Currently Amended) The method in accordance with the Claim ~~16~~18, wherein in the method, a resource instance table is used per each resource handler to provide the resource allocation situation to said resource allocation manager, and the synchronization of the bookkeeping and analysis with respect to the resource management and allocation of the resource handlers is determined so that substantially immediately after each execution turn of the resource handlers, it is the turn of the bookkeeping and analysis, wherein the resource allocation situation is unambiguously known in the resource instance tables regarding changes that have occurred.

22. (Currently Amended) The method in accordance with Claim ~~21~~18, wherein scheduling of the scheduling and selection with respect to the bookkeeping and analysis is determined so that the scheduling and selection is in turn substantially immediately after the execution of the bookkeeping and analysis, wherein the resource allocation situation is unambiguously known in the resource allocation table regarding the latest changes occurred, and values can be determined by the application session management and scheduling manager for the parameters of the control messages generated by it for the synchronization of the use of various types of resource reservation instances.

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23. (Cancelled)

24. (Currently Amended) The method in accordance with Claim 23̶18, wherein the application session management and scheduling manager analyzes the resource allocation situation and the scheduling of the sessions to be executed to detect an overload condition of one or more resources and to manage it by replacing, as needed, application sessions with other application sessions requiring less resources, or by delaying, as needed, the transmission of first control messages to the application sessions, which results in a temporary suspension of the ongoing application session, or in a delayed initiation of a new application session.

25. (Currently Amended) The method in accordance with the Claim 16̶18, wherein the activity blocks of the application session are placed in one or more activity block containers, activity blocks in any one of these activity block containers are executed temporally at different times, and in the presence of activity blocks that are intended to be executed substantially at the same time in the course of the session, they are placed in different activity block containers.

26. (Previously Presented) The method in accordance with Claim 25, wherein for designing applications that are to be executed in the system, each activity block container is furnished with an interface module at those points where the execution of an activity block or activity block container can be interrupted and it may be the turn of another operating system task to be executed, thus enabling the sending and reception of session control protocol messages to take place via this interface of the activity block container without a need to deal with these messages of the session control protocol as part of application design work.

27. (Currently Amended) The method in accordance with Claim 16̶18, wherein the resource handlers are equipped with an interface for transmitting information between each resource handler of the system, this interface being substantially independent of the application session and the resource type.

28. (Currently Amended) The method in accordance with Claim 16̶18, wherein a dedicated resource instance table is in the use of each resource handler, and the resource handlers are designed to be without intermediate delayed states, wherein the changes of the status data of

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individual resource reservation instances are stored in the resource instance table of each resource handler.

29. (Currently Amended) The method in accordance with Claim ~~16~~18, wherein a session history table is in the use of the scheduling and selection, and a resource allocation table is in the use of the bookkeeping and analysis, the resource management and allocation, bookkeeping and analysis, as well as scheduling and selection are designed to be without intermediate delayed states, wherein the changes of session-related status information is stored in said session history table, and the changes of session-related information of the resource reservation instances are stored in said resource allocation table.

30. (Currently Amended) The method in accordance with Claim ~~16~~18, wherein a load condition of the processor is determined, and power consumption of the processor is adjusted based on the load condition through scheduling of the activities of the application sessions.

31. (Currently Amended) An electronic device comprising one or more processors configured to execute application sessions, and configured to schedule resource reservation instances as well as the execution of substantially simultaneous application sessions, wherein the application session to be executed comprises one or more activity blocks in one or more activity block containers, and an execution order is determined for said activity blocks; the electronic device further comprising resource type specific resource handlers for reserving resources for the application session, resource allocation manager for analyzing and saving a resource allocation situation, application session management and scheduling manager for selecting at least the next application session and activity block to be executed based on said resource allocation situation, and for executing a next activity block in the course of the selected application session; and the electronic device is provided with a protocol connecting the resource handlers, resource allocation manager, application session management and scheduling manager to control the execution order and to implement transfer of information between said resource handlers, resource allocation manager, application session management and scheduling manager,
the electronic device further comprising
an operating system with scheduling functions, and for synchronizing reservation, release and other resource-related control from the application session management and scheduling manager, activity block containers, resource allocation manager, and resource handlers,

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wherein there is a session control protocol provided comprising application-independent control messages and rules on use thereof, that is arranged during its operation to implement synchronization and scheduling control of execution of the application session management and scheduling manager, the activity block containers, the resource allocation manager, as well as the resource handlers, on the basis of the task switching functions of the operating system as well as ~~O~~operating ~~S~~system task priorities defined for the application session management and scheduling manager, the activity block containers, the resource allocation manager, and the resource handlers, said device configured for bookkeeping of the resource allocation situation, configured for transmitting a first control message to an activity block to provide control information on the resource allocation to the activity block at the time of the initiation of the activity block, and for transmitting a second control message at the time of the completion of the execution of the activity block to provide information about the resources reserved or released by the activity block to update the bookkeeping of the resource allocation situation after the completion of each activity block, said device configured for an application session to reserve the resources needed by each activity block, as well as to release them, either directly from the resource type specific resource handlers or from the resource allocation manager that enable the queuing of reservation request messages, on the basis of control parameters received in a first control message received from application session management and scheduling manager, said device configured for making the resource reservation instances created on a request from the application session, via the use of second control messages, dynamically available to different activity block containers involved in the execution of the session, as needed, wherein an end state module is placed at the end of each activity block to complete the execution of the block, and a waiting state module is placed in the activity block container holding the activity block, and that the execution control of the activity block container holding the activity block is arranged to generate a second control message in the end state module and to pause the execution in the waiting state module in order to wait for a first control message from the application session management and scheduling manager, wherein the execution of the application session is temporarily interrupted regarding the current activity block container.

32. (Currently Amended) A wireless communication device comprising one or more processors configured to execute application sessions, and configured to schedule resource reservation instances as well as execution of substantially simultaneous application sessions, wherein an application session to be executed comprises one or more activity blocks in one or

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more activity block containers, and an execution order is determined for said activity blocks;
the wireless communication device further comprising resource type specific resource
handlers for reserving resources for the application session, resource allocation manager for
analyzing and saving a resource allocation situation, application session management and
scheduling M̶manager for selecting at least a next application session and activity block to be
executed based on said resource allocation situation, and for executing the next activity block
in the course of the selected application session; and the electronic device is provided with a
protocol connecting the resource handlers, resource allocation manager, application session
management and scheduling manager, to control the execution order and to implement the
transfer of information between said resource handlers, resource allocation manager,
application session management and scheduling manager,

the wireless communication device further comprising

an operating system with scheduling functions, and for synchronizing reservation, release and
other resource-related control from the application session management and scheduling
manager, activity block containers, resource allocation manager, and resource handlers, and
comprising a session control protocol comprised of application-independent control messages
and rules on their use, which is arranged during operation to implement the synchronization
and scheduling control of execution of the application session management and scheduling
manager, the activity block containers, the resource allocation manager, as well as the
resource handlers, based on the task switching functions of the operating system as well as
the operating system task priorities defined for the application session management and
scheduling manager, the activity block containers, the resource allocation manager, and the
resource handlers, said device configured for bookkeeping of the resource allocation
situation, configured for transmitting a first control message to an activity block to provide
control information on the resource allocation to the activity block at the time of the initiation
of the activity block, and for transmitting a second control message at the time of the comple-
tion of the execution of the activity block to provide information about the resources reserved
or released by the activity block to update the bookkeeping of the resource allocation
situation after the completion of each activity block, said device configured for making the
resource reservation instances created on a request from the application session, via the use of
second control messages, dynamically available to different activity block containers
involved in the execution of the session, as needed, said device configured for an application
session to reserve the resources needed by each activity block, as well as to release them,
either directly from the resource type specific resource handlers or from the resource

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allocation manager that enable the queuing of reservation request messages, on the basis of control parameters received in a first control message received from application session management and scheduling manager, wherein an end state module is placed at the end of each activity block to complete the execution of the block, and a waiting state module is placed in the activity block container holding the activity block, and that the execution control of the activity block container holding the activity block is arranged to generate a second control message in the end state module and to pause the execution in the waiting state module in order to wait for a first control message from the application session management and scheduling manager, wherein the execution of the application session is temporarily interrupted regarding the current activity block container.

33. (Currently Amended) A computer readable medium having a computer program stored thereon comprising machine executable instructions for executing application sessions in an electronic device with one or more processors for synchronizing resource reservation instances as well as the execution of substantially simultaneous application sessions, wherein the application session to be executed comprises one or more activity blocks in one or more activity block containers, and an execution order is determined for said activity blocks, the computer program further comprising machine executable instructions for performing at least the following:

- requesting and reserving resources for the application session,
- saving and analyzing the resource reservation situation,
- selecting the next application session and activity block to be executed at least on the basis of said resource reservation situation,
- executing the next activity block in the course of the selected application session,

wherein the computer program also comprises machine executable instructions for using a communication protocol connecting said requesting and reserving resources for the application session, saving and analyzing the resource reservation situation, selecting the next application session and activity block to be executed, and executing the next activity blocks, wherein the computer program is configured to utilize an operating system comprising task switching functions, and that for synchronizing reservation, release and other resource-related control from an application session management and scheduling manager, activity block containers, resource allocation manager and the resource handlers, there is provided a session control protocol comprised of application-independent control messages and rules on use

thereof, which is arranged, during operation, to implement synchronization and scheduling control of execution of the application session management and scheduling manager, the activity block containers, the resource allocation manager, as well as the resource handlers, based on the task switching functions of the operating system as well as operating system task priorities defined for the application session management and scheduling manager, the activity block containers, the resource allocation manager, and the resource handlers, wherein a bookkeeping of the resource allocation is maintained, and a first control message is transmitted to an activity block to provide control information on the resource allocation at the time of the initiation of the activity block, and a second control message is returned by the activity block to provide information about the resources reserved or released by the activity block to update the bookkeeping of the resource allocation situation after the completion of each activity block, wherein the resources needed by each activity block are reserved and released by the application session, either directly from resource type specific resource handlers or from the resource allocation manager that enable the queuing of reservation request messages, on the basis of control parameters received in a first control message received from application session management and scheduling manager, said device configured for making the resource reservation instances created on a request from the application session, via the use of second control messages, dynamically available to different activity block containers involved in the execution of the session, as needed, wherein an end state module is placed at the end of each activity block to complete the execution of the block, and a waiting state module is placed in the activity block container holding the activity block, and that the execution control of the activity block container holding the activity block is arranged to generate a second control message in the end state module and to pause the execution in the waiting state module in order to wait for a first control message from the application session management and scheduling manager, wherein the execution of the application session is temporarily interrupted regarding the current activity block container.

34. (Currently Amended) An electronic device comprising means for executing application sessions, one or more processors, and means for scheduling resource reservation instances as well as the execution of substantially simultaneous application sessions, wherein the application session to be executed comprises one or more activity blocks in one or more activity block containers, and an execution order is determined for said activity blocks; the electronic device further comprising resource type specific resource handlers for reserving resources for the application session, resource allocation manager for analyzing and saving a

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resource allocation situation, application session management and scheduling means for selecting at least the next application session and activity block to be executed on the basis of said resource allocation situation, executing means for executing the next activity block in the course of the selected application session; and the electronic device is provided with a protocol connecting the resource handlers, resource allocation manager, application session management and scheduling means and executing means, to control the execution order and to implement the transfer of information between said resource handlers, resource allocation manager, application session management and scheduling means, and executing means,: the electronic device further comprising

an operating system with scheduling functions, and for synchronizing the reservation, release and other resource-related control from the application session management and scheduling means, activity block containers, resource allocation manager, and resource handlers, there is a session control protocol composed of application-independent control messages and rules on use thereof, that is arranged during its operation to implement synchronization and scheduling control of execution of the application session management and scheduling means, the activity block containers, the resource allocation manager, as well as the resource handlers, on the basis of the task switching functions of the operating system as well as the operating system task priorities defined for the application session management and scheduling means, the activity block containers, the resource allocation manager, and the resource handlers, said device configured for bookkeeping of the resource allocation situation, configured for transmitting a first control message to an activity block to provide control information on the resource allocation to the activity block at the time of the initiation of the activity block, and for transmitting a second control message at the time of the completion of the execution of the activity block to provide information about the resources reserved or released by the activity block to update the bookkeeping of the resource allocation situation after the completion of each activity block, said device configured for making the resource reservation instances created on a request from the application session, via the use of second control messages, dynamically available to different activity block containers involved in the execution of the session, as needed, said system configured for an application session to reserve the resources needed by each activity block, as well as to release them, either directly from the resource type specific resource handlers or from the resource allocation manager that enable the queuing of reservation request messages, on the basis of control parameters received in a first control message received from application session management and scheduling manager, wherein an end state module is placed at the end of

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each activity block to complete the execution of the block, and a waiting state module is placed in the activity block container holding the activity block, and that the execution control of the activity block container holding the activity block is arranged to generate a second control message in the end state module and to pause the execution in the waiting state module in order to wait for a first control message from the application session management and scheduling manager, wherein the execution of the application session is temporarily interrupted regarding the current activity block container.

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